

### **Indium Tin Oxide (ITO)**

We are concerned with the breadth of the research proposed for indium tin oxide (ITO), which includes developmental, reproductive and carcinogenicity testing. The NTP Research Concept document presents data on several indium compounds, including Indium Phosphide (InP), Indium Arsenide (InAs), and ITO, indicating they are pulmonary and testicular toxicants. It seems feasible to apply a more aggressive category approach to indium compounds in order to assess toxic effects, since existing data point to indium as the primary toxicant. Although there may be some differences in solubility and toxicity between indium compounds, ITO is likely to behave similarly to the other indium compounds, by virtue of the presence of indium. Therefore, existing test data and SAR predictions for these indium compounds may provide a weight of evidence approach that precludes further testing of certain endpoints.

An additional reason for reconsidering the indium testing program outlined is that alternatives to indium are being pursued for numerous reasons, including the high cost and limited supply of indium as well as its limited utility for many of the fastest growing areas of transparent conductor use.

If studies of ITO are pursued, we ask that they be postponed until the results of the NIOSH exposure assessment, due to be completed in 2010, can be analyzed. Because both particle size and indium-tin composition varies among ITO applications, this exposure information is critical for choosing the appropriate size and composition of ITO for study in order to minimize animal use by targeting the testing to those forms with the highest likelihood of exposure.